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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/737,186

12/16/2003

Prashant Saxena

P18447

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28062 7590 03/16/2007
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EXAMINER

SIEK, VUTHE

ART UNIT

PAPER NUMBER

2825

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/737,186		SAXENA ET AL.	
	Examiner		Art Unit	
	Vuthe Siek		2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 4-6, 8 and 10-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application 10/737,186 filed on 12/16/2003.

Claims 1-20 remain pending in the application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 17 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The above claimed invention appears to be to an abstract idea than a practical application of the idea. The claimed invention does not result in an output transformation that provides a useful, concrete and tangible result. For example, claim 1 recited a process steps that clearly appear to be to an abstract idea than a practical application of the idea. Same arguments apply to an article and system claims because they appear to be executed an abstract idea. A tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process claim must set forth a practical application of that 101 judicial exception to produce a real-world result. No adjustment has been made; therefore there is no tangible result. Therefore, the claimed invention appears non-statutory.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 7, 9 and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Horne et al. (6,732,346 B2).

6. As to claims 1, 17 and 19, Horne et al. teach a software tool (automation) that generates wire route rules between logic gates in a semiconductor device for an automated layout of the logic gates in the device (automated adjustment). The software tool includes a routing rule generation tool that creates a route rule database for a given semiconductor fabrication technology and the circuit family of logic gates, and a block build tool that interconnects the logic gates with routes according to route rules generated and stored in the database. The routing rule generation tool also includes a noise sensitivity/gate characterization tool (automated noise analysis) and a rule generator tool. The block build tool further includes a gate sizing tool (automated adjustment), a gate analysis tool (automated noise analysis), a route rule selecting tool and a route assignment tool (Fig. 1 and description, at least see summary).

7. As to claims 2, 18 and 20, Horne et al. teach a noise sensitivity/gate characterization tool which is perturbation-aware within the context of the circuit design.

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8. As to claim 3, Horne et al. teach the noise problem is associated with a victim driver coupled to a victim line and an aggressor driver coupled to an aggressor line (Fig. 2A).

9. As to claim 7, Horne et al. teach the software tool including a gate sizing tool that sizes the individual gates using estimates for interconnect capacitance and resistance (col. 13 lines 60-67; col. 14 lines 1-18).

10. As to claim 9, Horne et al. teach manual review of the noise problem is required because the software tool is operated by layout designer (col. 9 lines 8-18).

11. As to claim 14, Horne et al. teach the circuit design using CMOS (col. 3 lines 48-63).

12. As to claims 15-16, Horne et al. teach using the software tool to size transistors and minimizing the redesign of the semiconductor device due to the discovering of noise problem (ECO). Also using the software tool as taught by Horne et al. avoids noise problems (col. 13 lines 60-67; col. 14 lines 1-18).

Allowable Subject Matter

13. Claims 4-6, 8 and 16-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if rewritten to result 101 rejection. The prior art of record does not teach or fairly suggest all claimed limitations as recited in the claims.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vuthe Siek whose telephone number is (571) 272-1906.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vuthe Siek


VUTHE SIEK
PRIMARY EXAMINER